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ABSTRACT

An evaluation was made of the international cooperative training programs for developing countries that have been in place in Israel for about 30 years. Of special interest were the dairy courses for English- and Spanish-speaking students. Methods used in the research included study of the course records, interviews with all people involved in the organization of the courses and participants in the 1985 dairy courses, observation, and development and testing of new evaluation instruments. The overall feedback from participants was highly positive. Participants valued the dedication of the instructors and the knowledge gained. Some of the areas in which changes or improvements seemed to be needed included the following: (1) defining clear, functional behavioral objectives for the courses; (2) inclusion of extension topics in the prospectus for the Spanish-speaking courses; (3) keeping better records; (4) requiring better knowledge of English for the English-speaking courses and/or grouping students more homogeneously; (5) leaving more time for discussion after lectures; (6) reserving more time for practical experiences; (7) making lecture notes and more written material available; (8) providing information on how to adapt Israeli techniques to developing countries; and (9) strengthening course evaluation methods through staff training in evaluation procedures. Appendixes contain the questionnaires. (KC)

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האיגוד הישראלי לשתוף בינלאומי

THE ISRAEL ASSOCIATION FOR INTERNATIONAL COOPERATION

EVALUATION UNIT

Continuity and Flexibility in Agricultural Training Courses

With special attention on "Dairy and Extension" courses

Center for International
Agricultural Cooperation
(CINADCO)

AUGUST
1986

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CONTINUITY AND FLEXIBILITY IN AGRICULTURAL TRAINING COURSES WITH SPECIAL ATTENTION ON "DAIRY AND EXTENSION" COURSES

Center for International Agricultural Development Cooperation
CINADCO

EVALUATION REPORT #4

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The Evaluation Unit of the Israel Association for International Cooperation has been commissioned by the Department of International Cooperation of the Israel Ministry for Foreign Affairs to conduct studies of various aspects of Israel's program of cooperation with developing countries. The purpose of these studies is to provide independent research and analysis in order to strengthen the effectiveness of this program.

August 1986

TABLE OF CONTENTS

Page

Preface.....3

1. Summary and Recommendations.....4
2. Background.....11
   2.1 Development of the courses.....11
   2.2 Evaluation in CINADCO training courses.....13
   2.3 Aims of the study.....14
3. Methodology.....17
   3.1 Action research.....17
   3.2 Methods used.....17
4. Findings and Discussion.....19
   4.1 Course objectives.....19
   4.2 Course topics.....21
   4.3 Participants and their background.....22
   4.4 Curriculum and methods of instruction.....27
   4.5 Staff.....37
   4.6 The project as integrating exercise.....38
   4.7 The cooperative structure of Israeli agriculture.....41
   4.8 Evaluation procedures.....42
   4.9 Results of the action research exercise.....51
   4.10 Impact evaluation.....52
   4.11 Connection between courses and other development efforts.....54
5. References.....55

Acknowledgements.....56

Appendices:

1. CINADCO Documentation on planning and running the courses in Israel, for follow-up and evaluation.....58
2. Questionnaire to participants at the beginning of the livestock course, 1985.....61
3. Questionnaire to participants at the end of the English speaking livestock course in Ruppin, 85.....67
4. Cuestionario de evaluacion - estadia en asentamientos agricolas - 10-14.11.85.....71

LIST OF TABLES

Page

Table 1: Number of participants in the English speaking dairy courses, according to years and origin.....22a

Table 2: Number of participants in the Spanish speaking dairy courses, according to years and origin.....24

Table 3: Previous occupation and academic degree of participants in the Spanish speaking dairy courses.....26

Table 4: Previous occupation and academic degree of participants in the English speaking dairy courses.....27

Table 5: Time allotted to different topics in the English speaking dairy courses.....28

Table 6: Time allotted to different topics in the Spanish speaking dairy courses.....29

Table 7: Participants' opinions on the time which should be devoted to extension.....33

Table 8: Time allotted to practical field work.....34

Table 9: Time allotted to full-day excursions.....35

Preface

Israel's international cooperation train[illegible] programs for developing countries have been in existence for nearly thirty years. During this period, agriculture-oriented courses, often related to agricultural extension, have been at the heart of the program. In light of this background, it seems appropriate to examine in depth the degree of continuity and flexibility in one of the major subject matter areas in which agriculture-oriented training has taken place. Program policy makers and planners are entitled to know the important elements in the courses selected for analysis, what problems must be confronted, what changes are introduced, and why.

In an effort to obtain sound professional answers to these and related questions, we turned to Professor Abraham Blum, head of the Department of Agricultural Education and Extension of the Hebrew University of Jerusalem, and his associate, Dr. Moshe Azencot. The present study not only addresses the pertinent questions, but thanks to Dr. Blum's and Dr. Azencot's experience and interest in the subject, it also provides insights and techniques in the application of "action research" methodology. The latter can be particularly useful in allowing near immmediate implementation of research results. Beyond these immediate benefits, the study offers many specific suggestions as well as food for thought.

I wish to take this opportunity to thank Professor Blum and Dr. Azencot and staff for their efforts. In particular I wish to express renewed thanks and appreciation for the help and cooperation to Mr.Yizhak Abt, Director of CINADCO, Ali Bialer, Director of Evaluation and Country Training programs of CINADCO, and the entire staff, especially the branches in Shefayim and Ruppin.

Jerusalem
August 1986

Dr.L.Y.Laufer,
Chief, Evaluation Unit, I.A.I.C.

1. SUMMARY AND RECOMMENDATIONS

The development of the CINADCO courses, generally, and of the English and Spanish speaking dairy courses, as typical examples for these courses, was surveyed and summative tables were prepared.

Methods used in this study included -

(1) study of the course records (as far as they could be found);
(2) interviews with all people involved in the organization of the dairy courses, their superiors and, above all, participants in the 1985 dairy courses;
(3) participatory observations during these courses and feedback to the course staff, in the Spanish speaking course, using an Action Research model,
(4) Development and testing of new evaluation instruments.

While there is still much room for improvement (and our discussion and recommendations will focus on these), the overall feed-back received from participants in both formal and informal procedures was highly positive. They emphasized the dedication of the permanent staff, of the part-time lecturers, of farmers and all others with whom they came into contact during their stay in Israel. Participants highly valued the knowledge gained from the dairy courses.

This summary assessment might have become even clearer, had the documentation on the courses been more complete. Documentation was more satisfactory in the Spanish than in the English speaking courses. A checklist of data and records to be kept by the centres (a document developed some time before the 1985 courses) started to have some impact, but the situation still leaves considerable room for improvement. The checklist or other instructions do not specify who is responsible for which part of the documentation (course directors? centre directors? a document officer in the Tel Aviv centre?) Clear guidelines are needed, where and how original application forms, projects prepared by

trainees and indications of impact on trainees after their return home, should be kept.

Especially in the English speaking dairy courses, directors often changed, from year to year. Thus, in the absence of adequate documentation, much experience was lost.

Although course participants are taught the importantance of behavioral objectives, the stated objectives of the training courses themselves are vague and do not reflect changes introduced from time to time. Defining clear, functional objectives, without overemphasizing formalization, can give the staff an excellent opportunity to clarify their thinking. It would also facilitate and improve evaluation procedures. In the planning of the course, special attention also should be given to those affective (motivational and attitudinal) objectives which could be reasonably achieved during the course.

In the Spanish speaking course, the inclusion of extension topics is usually not mentioned in the prospectus, or at least in its title. This is done out of fear that the inclusion of "extension" in the prospectus might deter prospective candidates from attending. Yet, 25% of the participants in the Spanish speaking course are extensionists. Therefore, the question arises whether "extension" should continue to be ignored in the prospectus. In the course itself, more time is devoted to extension than in the English courses.

We were able to show in this study that conspicuous differences do exist in the handling of information on courses in different countries. However, the sample was too small to identify clear trends. If in the future participants in all Mashav courses will be regularly surveyed on the question of pre-course information, important data will accrue, which will show where liaison and/or information on courses must be improved. Such a survey will also show, which departments or organisations in each country are most active and reliable as contacts.

Usually, participants are interviewed about their background and expectations by the course director (or another staff member), at the beginning of the course. However, the notes ("personal profiles") on these interviews are often missing from the files. Part-time lecturers have argued that they could better prepare themselves and adapt their lecture to the specific background of participants, if they knew more about them ahead of time. An effort should be made to make this type of information available to all lecturers (and others active in the course), as early as possible.

The best way to survey trainees' expectations is through a questionnaire given to participants upon arrival (or in connection with the intake interview). This questionnaire can also serve as a benchmark for comparison with data obtained in the final evaluation of the course.

Our study showed that (a) the educational background of participants from Latin America is quite good, reasonably equal, and no language problems exist; (b) trainees from other parts of the world enrolled in the English speaking courses, are a very heterogeneuous group. Greater attention should be paid to proficiency in English of those candidates whose language of instruction or higher level study was not English.

Even if reasonable language proficiency were assured, participants in the English speaking courses are likely to be a highly heterogeneous group. Stronger emphasis on group work and grouping according to background might help improve the situation.

We found quite distinct ups and downs in the time allotted to professional, economic-managerial and extension topics, in consecutive courses. The same was true for project work and field experience. There are no guidelines on the optimal proportions between topical areas or on the criteria governing the amount of time allotted to various topics.

When the planning team decides on a change in the content of the course, this should find its expression also in the relative time allotted to each topic. This was not always the case in the past.

Participants expressed the wish in various final evaluation sessions that enough time should be left for discussions after formal lectures. This point should be emphasized in the guidelines given to lecturers.

The extension part of the courses has been devoted to the teaching of methods, and especially communication skills, with the immediate objective of helping participants present their final projects effectively. Since the large majority of participants are administrators or extension officers with organizational duties, it seems most important that they learn not only about extension methods, but also about more basic questions of extension planning and monitoring, and about the role extension can play in development efforts. Our evaluation showed that participants were favourably impressed by the role extension can play in the development of a country, as exemplified by Israeli agriculture.

Both project work and practical training in cooperative settlements are highly regarded by participants. Often, they have suggested augmenting the number of days devoted to practical experiences. Written guidelines for these activities would be helpful to participants.

Even more generally, lecture notes which could serve as back-up to lectures, are insufficient. The permanent staff should be encouraged to prepare such materials (which can be used also in following years) between courses. Suitable incentives should be found to persuade regular outside lecturers to do the same.

The lack of written course material is felt even more keenly, because libraries in both training centres stock few publications

in English or Spanish, respectively, on agricultural and development issues relevant to developing countries.

Because of the great difficulties in placing trainees in Moshavim (especially in dairy courses), participants were sent for practical experience mainly to Kibbutzim - even in those courses in which the emphasis was on family farms.

In many cases, lecturers assumed that participants knew themselves how to adapt advanced Israeli techniques and solutions to the conditions in their own countries. Participants, on the other hand, wished lecturers to relate specifically to the situation in developing countries. The problem seems to be more conspicuous in the English speaking courses, in which lecturers did not originate from the same continent as participants and usually had less experience in development work in the countries from which participants came.

In order to overcome the gap, regular part-time lecturers without third world experience should be invited to participate in seminars on development problems, with special reference to their subject matter speciality. In such seminars case studies from less developed countries should be analyzed. These case studies could also be used as background in the regular training courses, especially in connection with project work.

In this way, part-time lecturers can also be prepared for possible inclusion in teams giving on-the-spot courses.

It would be worthwhile to explore the feasibility of systematic training in adaptation techniques, by using (and if necessary - preparing) checklists based on empirical case studies.

An ideal place to practice adaptation and integration of professional and extension aspects of development is in project work. To augment the chances that this will happen, topics and subtopics should be defined and guidelines for project work

(which so far are quite general) should stress the integrative character and ways of achieving better integration.

In such a way, project work could become the peak learning experience of the course. It should start quite early in the course, as successfully tried out in the Spanish course and should influence the sequence of topics treated in the course. The central position of tutored project work would sharpen the need for a suitable procedure to evaluate the projects. So far, such an evaluation is not carried out systematically.

Another suitable place to discuss adaptation and integration issues is in connection with country reports by the participants. Such reports should not be considered as extracurricular activities, scheduled in evenings, when subject matter lecturers are not present. They should be an integral part of the program and specialists who know the country on which a report is given, should be invited to participate.

On recurring occasions, participants wished to have more time to follow up professional interests, which were not sufficiently covered by the course program, or to meet Israeli counterparts. To make this possible, and to adapt (as far as still possible) the course program to participants' needs, their expectations should be recorded at the beginning of the course (in the personal interview or in form of a questionnaire) and a day or two, towards the end of the course, should be left free for individual contacts. Actually, this method was already successfully tried out, especially in the Spanish speaking courses. Participants should be told from the beginning, which of their expectations can be met and which cannot.

One of the weak points in the courses was evaluation. It could be strengthened through staff training in evaluation procedures. This study showed, that carefully prepared questionnaires given to participants at the beginning and at the end of courses can give good indications on the progress trainees made during the

course. They can also serve, to a certain degree, to assess changes in participants' attitudes and the attainment of motivational objectives.

The action research exercise which was included in this study showed the value of a participatory evaluator, who is accepted by the staff as an empathetic and helpful resource person, but is independent and not directly involved in running the courses. Thus some of the main advantages of both external and internal evaluation can be combined, cancelling out many of the disadvantages. An experienced, participatory evaluator can also serve as evaluation trainer to the staff.

Many interesting features are explored in one of the training centres and remain unknown to the other. A forum should be created, in which staff and professional coordinators connected to either of the centres should regularly meet together and exchange experiences and thoughts about possible improvements.

Even more would be gained in terms of intellectual intercourse and management efficiency, if the two CINADCO training centres could be united.

Finally, the long list of suggestions for improvements must not overshadow the immense sense of achievement and of gratitude to the staff which participants expressed at various unsolicited occasions. The enthusiasm, empathy and dedication of staff members and outside lecturers, far beyond their duty or remuneration, is probably the greatest asset and one of the chief factors for the success of the courses. In the Spanish speaking courses , the cooperation between staff and professional (dairy) coordinator was excellent. It was less so in the English courses.

2. BACKGROUND

2.1 Development of the courses

The will to train agriculturists from developing countries grew out of the intensive rural development work, which became the landmark of the young State of Israel in the 1950s and the early 1960s. It sprang out of a keen feeling of having much in common with other nations emerging at the time. (Laufer,1967; Curtis & Gitelson,1976; Decter, 1977; Abt et al,1979; Amir,1979; Futerfas, 1985; Blum,1986).

Besides the Israeli experience with training new immigrants, another important input came from observing agricultural courses conducted in the Netherlands. Gershon Fradkin, an agricultural extensionist working in the Jewish Agency's Extension Service, visited the Netherlands in 1957 and upon his return suggested to Raanan Weitz, the head of the Jewish Agency Settlement Department, that similar courses, with an even greater emphasis on developing countries, should be offered in Israel.

The first course participants came from Sierra Leone and Liberia. They came for a full year and much of the time was devoted to practical work in Kibbutz Degania, where the course was held. Thus participants "earned their living", but often they were engaged in routine jobs. Then, the Kibbutz was offered pay for the maintenance of the participants so that they were able to concentrate on jobs they were interested in learning, and the time devoted to study became more dominant than before. It also became clear,that a year was too long a time to separate course participants from their home. Courses were shortened to last only a few months and they were transferred to Midreshet Ruppin, the Ruppin Agricultural Study Center. Later, courses (mainly those in Spanish) were added and concentrated at Kibbutz Shefayim, using its guest house facilities.

After the merger between the extension services in the Ministry of Agriculture and the Settlement Department of the Jewish Agency, a special Foreign Training Department was set up within the Extension and Professional Service of the Ministry of Agriculture. Soon, professional training became linked with training in extension methods, in order to enable participants to disseminate the knowledge they had gained also to others in their home countries. Thus, one of the inherent rules of the Israeli settlement movement became a corner stone of the international courses offered by the Foreign Training Department: Whoever is helped to acquire new knowledge for development is expected to share it with others who need this knowledge.

The international courses for intensive dairy production and extension methods (in English) started in 1974 (see Samson,1984). Until 1985, some 175 participants from 36 countries attended the 11 English speaking courses, with a mean of 16 participants in each course (see Table 1).

During the years 1981-85 five Spanish speaking courses were held, with 129 participants from 16 Latin American countries. The mean participation (26) was larger than in the English speaking courses (see Table 2).

The dairy courses are among the most typical for the training courses, in which both agricultural subject matter and extension methods are taught. Therefore they were chosen as object of this intensive evaluation study.

As of January 1, 1983, the "Foreign Training Department" of Shaham (the Extension and Professional Service of the Ministry of Agriculture) and the "Centre for International Agricultural Co-operation", which had been responsible for Israel's agricultural development projects in developing countries, were merged into one - and thus CINADCO, the "Centre for International Agricultu-

ral Development Cooperation" was created (CINADCO, 1986). One of the purposes of the merger was to strengthen the links between development projects abroad and the training courses run in Israel or abroad. How far these links were forged by the merger has not yet been evaluated.

2.2 Evaluation in CINADCO training courses

So far, evaluation of CINADCO courses had consisted of personal interviews at the beginning of the course, feedback sessions, final evaluation questionnaires and a final evaluation meeting. Budescu (1985) found that at Midreshet Ruppin, "in most cases, the interviews are not recorded, and information is not passed on systematically to the rest of the training staff. At Shefayim, where personal interviews at the opening of the course were introduced only recently, the information is recorded and passed on to the rest of the staff....At Shefayim there are about four [feedback] meetings during any one course. At Ruppin not all members of the training staff use this instrument, and it is hard to determine the frequency of the sessions when they take place".

Referring to the final evaluation questionnaires which are used as standard instruments in both the Ruppin and Shefayim Centres, Budescu (ibid.) writes: "some staff members question the validity of the information provided by this evaluative instrument, and consequently make limited use of it." Budescu also doubted whether the use of the final questionnaire to evaluate the performance of outside lecturer was sufficient and reliable. She also criticized the course evaluation sessions for the lack of recording and filing. Thus it is not surprising that Budescu concluded that much more efforts should be put into evaluation of training courses.

This need for improved evaluation procedures and a more in-depth study of one of the typical training courses was also felt by the heads of CINADCO, Mashav and cooperating international

sources. A senior staff member of CINADCO was charged with the supervision of evaluation activities. He prepared and distributed to the permanent staff members a checklist of data which should be recorded and collected (Appendix 1).

2.3 Aims of the study

The main purposes of this study were-

(1) to study and evaluate over time the development and related aspects of dairy and extension courses, as representative examples of CINADCO training courses,

(2) to analyze various factors and circumstances which influence the effectiveness of the courses.

Additional objectives were -

(3) to suggest and try out improved techniques for ongoing (formative) and final (summative) evaluation,

(4) to develop techniques for monitoring courses while they are going on and for immediate use of this formative evaluation.

More specifically, the following evaluation questions were asked:

(1) What were the objectives of, and the topics in the dairy and extension course (in short: the course) held so far and how do they relate to the over-all policy of CINADCO?

(2) How many participants attended each course and what was the personal and professional background of participants?

(3) How did the curriculum and the teaching methods used in the course change over time?

(4) What factors brought about these changes in curriculum and methods used?

(5) How and why did the faculty change over time?

(6) How far were the changes introduced in the curriculum, in the methods used and in the faculty related to changes in the population of participants and to changed needs in the countries from which the participants came?

(7) How were the technological solutions appropriate to the development levels existing in participants' countries stressed, compared to the demonstration of the latest technologies used in Israel?

(8) How were the specific Israeli solutions to dairy problems and to the diffusion of information among farmers built into the course?

(9) How were the extension theme and the subject matter integrated?

(10) How much time was devoted to the projects?
What was their quality?
How did they relate to specific problems of participants?
How did they treat extension issues?

(11) How were the cooperative structure of Israeli agriculture and the motivation of dairy farmers in Israel built into the course program? What was their impact on participants (as far as indicators can be found)?

(12) How were the courses evaluated? What were the recommendations at the end of the course and how far were they imple-

mented in planning the next course or in other activities of CINADCO?

(13) What indications exist on the impact of the course after participants returned home (as far as such indicators can be found)?

(14) What was the relationship between the course and other activities for the improvement of dairy farming (e.g. projects in developing countries, courses offered abroad, etc) in which CINADCO and/or other Israeli development agencies (e.g. Agridev, Tahal) were involved?

3. METHODOLOGY

3.1 Action research

In this investigation we used an action research approach (see Weiss, 1972). According to this, findings by the independent, but empathic researcher are fed back to the organizers of the ongoing courses, as soon as they are observed and evaluated, and not only at the end of the research assignments, in the final report. This approach has two advantages: (1) changes can be introduced still in an ongoing activity, thus speeding up the improvement phase (the final aim of the evaluation), and (2) the effects of this change can be studied by the investigator, still in the same evaluation research project.

3.2 Methods used

In line with the action research approach, we used methodologies from different social sciences. Specifically:

(1) Written records of all the courses held so far, were collected and studied. Unfortunately, the files were far from complete. Original application forms and participants' projects were not kept in the course files and other important data and possible sources of information were not filed at all.

(2) Questions arising from the study of the documents were discussed with the course directors and the subject matter specialists in charge of planning the professional content in the dairy courses.

(3) In-depth interviews were held with -
- centre directors,
- course directors,
- all the permanent staff members,
- the dairy specialists responsible for the professional part of the courses,

- lecturers with long experience in the courses,
- the director of CINADCO and his assistants,
- the evaluation officer of CINADCO,
- the deputy director of Mashav who is in charge of the training courses,
- the former director and founder of the Foreign Training Department,
- last, but not least: participants in the English and Spanish speaking courses which were held during the time this study was conducted.

(4) Participant observations during the two courses (one in English and one in Spanish) which were held during the year this study was made. These observations were more intensive in the Spanish speaking course, in which the action research approach was used throughout, and activities were modified in accordance with feedback relayed to the organizers by the observer-evaluator.

(5) Structured evaluation questionnaires, which were given to participants, where appropriate, as pre- and posttest. These questionnaires included also questions on the way information on the course was disseminated to participants before their coming to Israel. This question was of much interest to the heads of Mashav, at the time of the study.

(6) Where appropriate, results were compared with earlier studies.

4. FINDINGS AND DISCUSSION

4.1 Course objectives

The objectives, as described in the prospecti of the dairy and extension courses (for English and Spanish speaking trainees) vary from year to year. This variance could be observed even when comparing the prospectus of a given course with the description of the objectives in the final report of the course director or in participants' reports. However, the differences are more semantic than substantive. The objectives usually contain the following points:

(1) to help participants to acquire both theoretical and practical know-how,
(2) to present the new technologies which were developed in Israel,
(3) to help participants adapt the technologies to their own conditions.

In some courses, additional objectives were mentioned, e.g.-

- to help participants define training needs of staff and cattle breeders,
- to prepare development projects adapted to participants' needs,
- to teach extension methods for communicating new technologies.

The objectives are usually vaguely formulated, which makes evaluation more difficult. The reason may be a lack of concensus, or unclear ideas on what exactly should be achieved during the course. If that is the case, special planning meetings to define the objectives more clearly would contribute to an improvement in the overall course outcome. There is no need to exaggerate on the formal side, when writing objectives; but at least for internal purposes, setting operational objectives would help clarify ideas and facilitate an assessment of how far the objectives were reached.

A further objective not included in the prospecti, but emphasized by course directors (and participants were quite aware of it) was:
- to help participants in their professional career.

When participants were asked to formulate their own objectives (as we did in our study), these differed in some aspects from those stated in the prospectus. This stems in part from the fact that not all participants received the prospectus, but also from specific expectations individual participants have, when they come to the course. It is important to clarify this point at the beginning of each course, in order to prevent illusions, on the one hand, or to adapt the program in such a way, that additional objectives of participants can be met.

CINADCO (1986) defines the aims of the training courses as follows:

- "to provide ... knowledge, know-how and attitudes which will enable the trainee to perform his specific duty more effectively and more efficiently, and to contribute to the development of the institution, project or area he is working in;

- [to teach] how to transfer knowledge and know-how to others: peers, subordinates and/or farmers."

When we compare these statements with the objectives of the dairy courses, we find that they are congruent, at least in reference to the provision of (theoretical) knowledge and (practical) know-how. The paramount importance of attitudes is acknowledged by all people active in the training programs, but is usually not stated in the objectives. This may be partly because of the difficulties one gets into, when trying to define attitudinal objectives, and partly because it is very difficult to achieve lasting attitudinal changes in the relative short time of a trai-

ning course and even more difficult to measure this change. Yet, some of the data which we shall present in later chapters show that bona fide statements of participants indicate attitudinal changes at least at the levels of awareness and declared acceptance. (Kratwohl et al, 1964)

4.2 Course Topics

The first three English speaking courses (1974- 1977), supported by FAO and sponsored by Mashav (the Department for International Cooperation in the Ministry for Foreign Affairs), lasted over five months, including a work period of a month, and treated most aspects of dairy farming. The dairy specialists in charge of these courses felt, that the courses should be shortened to two months, and that they should treat specific dairy subjects, thus making more specialization possible. Subsequent dairy courses in 1978-79 focused on nutrition and management, that of 1980 on breeding (including breeding for beef production). During the last six years, the titles of the courses were changed annually:

1980: Dairy and Beef Cattle Breeding and Improvement,
1981: Dairy Cattle Breeding , Nutrition and Management,
1982: Dairy Cattle Breeding and Management,
1983: Planning and Development of Family Dairy Production,
1984: Dairy Production, Improvement and Beef Fattening,
1985: Dairy Production with Emphasis on the Family Farm and Warm Climates.

In all these English speaking courses the words 'extension' or 'extension methods' were added to the title of the course.

In reality, the changes in the actual curricula and in the time-tables of the courses were less pronounced than the changed course titles would suggest. Often, changes in the title were introduced because the organizers thought the new title would be more attractive to potential participants. When we come to the

analysis of the course programs, we shall probe the extent to which changes of course title reflected changes in curricula.

The Spanish courses started in 1981 under the title of "dairy course". In the following year "livestock extension" was added to the course title, but this addition (and any reference to extension in the title of the courses) was again dropped in the following courses (1983-85) which were all entitled "Dairy Production, Nutrition and Management courses".

The non-inclusion of the term 'extension' in the prospecti of most of the Spanish dairy courses was due to the low repute of the term "extension" in Latin America. The organizers felt that the advertisement of extension as part of the course might deter prospective participants from attending the courses. As we shall see (Section 4.3), in reality the percentage of extension workers was higher in the Spanish than in the English speaking courses. Therefore, the question of using the term "extension" (or a more acceptable synonym) in the Spanish prospecti should be reconsidered.

As we shall see (in section 4.4), the omission of the term extension in the Spanish prospecti does not necessarily mean, that the course program did not include lectures and other activities on extension. Actually, in nearly all the Spanish speaking courses, more time was allotted to extension topics than in the English speaking courses (see Tables 5 and 6).

4.3 Participants and their background

Table 1 summarizes the number of participants in the English speaking dairy courses, according to years and countries of origin. Table 2 does the same for the Spanish speaking courses.

In the English speaking courses the mean participation was 16. Only in the course of 1985 the number dropped sharply to 8 and

Table 1
NUMBER OF PARTICIPANTS IN THE ENGLISH SPEAKING DAIRY COURSES
ACCORDING TO YEAR AND COUNTRY OF ORIGIN

Country	1974	75	76/7	78	79	80	81	82	83	84	85	Total
Burma	-	-	-	2	2	3	2	2	-	-	-	11
Cambodia	2	-	-	-	-	-	-	-	-	-	-	2
India	-	-	-	-	1	2	1	2	-	-	-	6
Korea	-	-	1	-	-	-	-	-	-	-	-	1
Laos	-	1	-	-	-	-	-	-	-	-	-	1
Nepal	-	-	1	2	-	1	2	-	2	2	-	10
Philippines	1	-	-	1	2	3	1	1	4	4	2	19
Thailand	2	1	3	2	1	-	2	3	3	2	2	21
Asia												71
Ethiopia	-	1	-	-	-	-	-	-	-	-	-	1
Ghana	-	1	-	-	-	-	-	2	-	-	1	4
Kenya	-	-	-	-	-	2	3	4	4	1	-	14
Lesotho	2	-	1	1	-	1	1	-	-	-	-	6
Liberia	-	-	-	-	-	-	-	-	-	-	2	2
Malawi	2	-	-	-	-	-	-	2	1	2	-	7
Swaziland	2	2	2	-	-	2	-	1	2	1	1	13
Africa												47
Argentina	-	-	-	-	-	-	-	-	1	-	-	1
Brazil	-	1	-	1	1	1	-	-	-	-	-	4
Chile	-	-	-	1	-	-	-	-	-	-	-	1
Colombia	-	-	-	-	-	1	-	-	-	1	-	2
Costa-Rica	-	-	-	-	3	-	-	-	-	-	-	3
Dominican Republic	-	2	-	-	-	-	-	-	-	-	-	2
Ecuador	-	-	-	-	-	-	1	-	-	-	-	1
Guatemala	-	-	-	1	1	1	1	-	-	1	-	5
Guyana	1	-	-	-	-	-	-	-	-	-	-	1
Mexico	-	-	-	-	-	-	1	-	-	2	-	3
Panama	-	-	-	-	-	1	-	-	-	-	-	1
Peru	-	-	-	-	-	-	1	-	-	1	-	2
Uruguay	-	-	-	-	-	1	-	-	-	1	-	2
Latin America												28
Barbados	1	1	1	-	-	-	-	-	-	-	-	3
Haiti	-	-	3	-	-	-	-	-	-	-	-	3
Jamaica	1	-	-	2	-	-	-	1	1	1	-	6
St. Kits	-	-	-	-	1	1	1	-	-	-	-	3
St. Lucia	-	-	-	-	1	-	-	-	-	-	-	1
Carribean												16
Salomon Islands	1	-	-	-	-	-	-	-	-	-	-	1
Tonga	1	-	-	-	-	-	-	-	-	-	-	1
Pacific												2
Cyprus	2	2	2	1	1	-	1	-	-	-	-	9
Turkey	2	-	-	-	-	-	-	-	-	-	-	2
Mediterranean												11
Total	20	12	14	14	14	20	18	18	18	19	8	175

the course was reorganized to cater to participants interested in either dairy or poultry production. (In this report we shall refer only to participants in the dairy section, unless stated otherwise, e.g. in the pre- and post-course questionnaires which we gave to participants).

Although participants (totaling 128) came from 37 countries, some are "overrepresented": Thailand (21), the Phillipines (19), Kenya (14)) and Swaziland (13). These are countries with which Israel has close development connection (but not necessarily diplomatic relations, as the case of Kenya shows). At least to some degree, this overrepresentation is due to the strong involvement of the Israeli embassies (or representatives) in spreading the message of the courses in these countries, either regularly or during a certain peak period (e.g. in Kenya).

The regular attendance of Thai participants in the dairy courses is especially noteworthy, because they come from a country in which the drinking of milk is traditionally left to children. No doubt, that the local "lobby" was strong and the positive impact of the courses on participants and on those to whom they reported, kept attendance from Thailand at a steady level. (Not all applicants could be accepted).

In spite of the fact that since 1981 dairy courses are held also in Spanish, individual participants from Latin America continued to attend the English speaking courses, when these were held at a more suitable time for them and when participants were fluent enough in English.

The enormous heterogeneity in the origin of participants in the English speaking courses is reflected in the communication difficulties which exist in these courses. For most of the participants English is not their mother tongue, and for many it is not the language in which they received their schooling and trai-

ning. Observations by the researchers and reports by the staff confirm the existence of a language problem. Therefore special attention should be given to the language proficiency of candidates in the English speaking courses. The situation, of course is quite different for participants in the Spanish courses, who are studying in their mother tongue.

The 5 Spanish courses included 129 trainees from 16 countries (Table 2). The mean participation rate was 26, substantially higher than for the English courses.

Table 2

NUMBER OF PARTICIPANTS IN THE SPANISH SPEAKING DAIRY COURSES ACCORDING TO YEAR AND COUNTRY OF ORIGIN

Country	1981	1982	1983	1984	1985	Total
Argentina	-	-	1	2	2	5
Bolivia	2	-	1	1	1	5
Brazil	2	-	-	2	1	5
Colombia	2	3	3	2	7	17
Costa-Rica	1	1	3	4	3	12
Dominicana	3	2	3	1	3	12
Ecuador	1	2	3	4	1	11
El-Salvador	-	-	1	-	6	7
Guatemala	3	2	1	3	1	10
Honduras	-	-	1	-	-	1
Mexico	3	1	-	-	-	4
Panama	1	2	2	4	2	11
Paraguay	-	1	-	1	-	2
Peru	2	3	3	2	2	12
Uruguay	3	3	2	2	1	11
Venezuela	3	-	-	-	1	4
Total	26	20	24	28	31	129

Commercial livestock production is more developed in Latin America than in Asia and Africa. This is probably the reason, why from the beginning, there were more applicants for the Spanish courses than for the English speaking ones. Another reason is that Israel has more and closer, political and economic relations with Latin America than with Asia, Africa and the Pacific Islands. Yet,

without doubt, stronger involvement by Israeli representatives and more efforts to disseminate information on the courses, would yield more applications and from more qualified candidates.

Some participants came from Israeli development aid programs in Latin America. The Spanish speaking candidates also had more suitable backgrounds than their counterparts from anglophone countries. (See Tables 3 and 4). Thus, a higher percentage of candidates could be accepted into the courses. Last, but not least, it seems that Latin Americans found it easier to obtain stipends and travel grants. Actually, some paid their own fare and course fees.

As Tables 1 and 2 show, the distribution according to country of origin of participants is more even for the Spanish speaking courses. Only in the last course two larger national contingents participated - from Colombia and El Salvador. Some years ago, a member of the Colombian Organisation for the Promotion of Livestock (Fondo Ganadero) attended one of the dairy courses. He must have been quite satisfied, because he asked for five CINADCO on-the-spot courses in his country and helped to organize them. As a result, a group of 7 Colombian dairy farmers came to last year's course, at their own expense. The background for the large contingent from El Salvador is similar. Tahal, an Israeli governmental development company, which was running a project in El Salvador, sent a local dairy manager to the course. When this man came home, he "recruited" a group of colleagues for the 1985 dairy course.

Tables 3 and 4 summarize the occupations of the participants in the English and Spanish courses, respectively, and data on those holding an academic degree. Data on the English speaking courses could be found only for the years 1980-1982 and for 1984-1985. In many cases, the files on the English courses did not contain the necessary information.

In the Spanish courses nearly all participants had at least a B.Sc. degree, in many cases also a M.Sc. (or equivalent), or they were veterinarians.

In practically all the courses, administrators (including people engaged in planning) were the most conspicuous group. They constituted, on the average, 43-44% of the student body.

Table 3
PREVIOUS OCCUPATION AND ACADEMIC DEGREE OF THE PARTICIPANTS IN THE ENGLISH SPEAKING DAIRY COURSES

Occupation	1980	1981	1982	1984	1985	Total N	Total %
Administration	3	10	10	10	4	37	44
Extension	6	3	1	3	3	16	19
Training (Teaching)	1	1	2	2	1	7	8
Veterinarians	6	4	2	1	-	13	15
Research	1	1	1	-	-	3	4
Agric. Production	3	-	2	2	-	7	8
Other	-	-	-	1	-	1	1
Total						84	100
With Degree	8	16	3	8	8	43	51
Without Degree	4	1	2	1	-	8	10
Uncertain	8	2	13	10	-	33	39
Total	20	19	18	19	8	84	100

Table 4
PREVIOUS OCCUPATION AND ACADEMIC DEGREE OF THE PARTICIPANTS IN THE SPANISH SPEAKING DAIRY COURSES

Occupation	1981	1982	1983	1984	1985	Total N	Total %
Administration	15	9	9	10	13	56	43
Extension	6	3	7	8	8	32	25
Training (Teaching)	2	4	3	4	2	15	11
Veterinarians	1	4	3	2	2	12	9
Research	1	-	2	2	4	9	7
Agric. Production	-	-	-	1	1	2	2
Other	1	-	-	1	1	3	3
Total						129	100
With Degree	25	18	21	27	30	121	93
Without Degree	1	2	3	1	1	8	7
Total	26	20	24	28	31	129	100

The second largest group were the extensionists. Their share was higher in the Spanish courses (25%) than in the English courses (19%). This finding stands in strong contrast to the impressions of the course staff in the Spanish speaking courses who preferred not to advertise the course as both professional and extension oriented, out of fear that not enough participants would be coming. (As we have seen, the average rate of participation in the Spanish speaking courses was considerably higher than in the English courses).

The remaining participants were mainly veterinarians and trainers or teachers. Only few researchers and producers attended the courses. This is understandable, because people in these two categories have different training needs and do not belong to the main target population.

4.4 Curriculum and methods of instruction

The curriculum of all the courses included the following elements, but not always in the same proportions:

(1) Lectures on professional, economic-managerial and extension topics, as well as on Israel.
(2) A final project, prepared and presented by small groups of participants.
(3) Specific professional field trips, during the week.
(4) Full-day excursions. These were conducted mainly over week-ends and served "touristic", as well as professional purposes.
(5) Practical work periods.

Tables 5 and 6 show the fluctuations in the amount of time allotted to the different activities in the English and Spanish courses, respectively, over the last 5-6 years. (The full days devoted to full day excursions and to practical work will be summarized in Tables 8 and 9.)

Table 5:
TIME ALLOTTED TO DIFFERENT TOPIC IN THE ENGLISH SPEAKING COURSES
(hours)

Topic	1980	1981	1982	1984	1985	Mean N	Mean %
Professional topics	143	155	115	105	157	135	48
Economics and management	38	25	43	42	28	35	13
Extension	10	25	43	28	26	26	10
On Israel	12	15	14	11	9	12	4
Project work	52	28	52	34	65	46	17
Professional field trips	16	28	28	20	22	23	8
Total	271	276	295	240	307	277	100

Table 6

TIME ALLOTTED TO DIFFERENT TOPICS IN THE SPANISH SPEAKING COURSES (hours)

Topic	1981	1982	1983	1984	1985	Mean N	Mean %
Professional topics	158	152	125	115	174	144	44
Economics and management	28	28	36	51	40	37	11
Extension	40	60	26	51	33	42	13
On Israel	18	35	31	23	20	25	8
Project work	60	40	42	60	64	53	16
Professional field trips	25	27	28	30	34	29	8
Total	329	342	288	330	365	331	100

The Spanish speaking courses were regularly longer than the English courses, even if we take into account that practical work periods and full day excursions tended to be longer in the English courses (see Tables 8 and 9). This shows that the professional side was more emphasized in the Spanish courses, and that the professional coordinator was more involved than in the English courses.

The differences in the professional content of the Spanish and English speaking courses stem mainly from the differences between Latin America and Asia/Africa in dairy production and management. Thus, in the Spanish courses more emphasis was put on milk production problems.

Changes in the allottment of time, from one year to the next, occurred in all topics; but besides a trend in the Spanish courses to increase economic and managerial aspects, no regular patterns could be detected. Yet, even in this case, economic and managerial topics were augmented by 42%, from 36 to 51 hours (from 1983 to 1984) and then decreased again to 40 hours, in the following year, without a change in the name or in the objectives of

the course. The files do not contain reports on the reasons for the changes. In many cases, idiosyncratic ideas of the organizers and availability of lecturers with the appropriate language proficiency seem to have been the main reasons for the changes. According to some course organizers, changes were introduced also out of consideration for the level of participants and in accordance with their wish. Since the records do not document the deliberations which went on between the first planning stages and the final course program, this point cannot be verified. Actually, it seems that changes were introduced mainly on the basis of the evaluation of the last course, even though the composition of participants in the next course could not yet be foreseen. In some cases, a change in the opposite direction occurred after the evaluation of the following course - a kind of pendulum procedure, which keeps the balance between topics more or less the same, over the years.

Since course planners never know beforehand where participants for the next course will come from, it is very difficult to adapt course programs to the changing needs of specific countries. These needs can be met in two ways:

(1) Individual participants can be brought into contact with Israeli counterparts and specialized resource persons, who can advise participants in their specialized areas of interest. (This is done more in the Spanish than in the English speaking courses).

(2) The course content can be brought up to date according to developments in a major global area from which participants are coming. This is easier accomplished in the Spanish courses, where the agricultural and socio-economic background of participants is more homogeneous than in the English courses. Thus, for example, the time allotted to economic problems was augmented in the Spanish courses. We could not find many signs of a systematic re-

planning of courses to meet changed needs in third world countries. On the other hand, the main dairy problems in developing countries are so basic that needs do not change very quickly.

Another possibility for updating course content is to discuss with participants the issues they raise in their country reports. This, however, is only possible if lecturers attending these sessions are familiar with the specific situations in each participant's country, something which cannot reasonably be expected.

Comparing the mean hours allotted to each topic, the clear preference of professional topics over economic-managerial and extension topics stands out. Considering that nearly half of the participants occupy administrative and planning positions, it would make sense to enhance the time allotted to economic- managerial topics. So far no policy statement on how, percentage-wise, time should be divided between the different groups of topics could be found.

Sometimes participants come for the sole purpose of studying subject matter and are not interested in extension. It seems, that a certain change in their attitude toward extension occurs during the course.

So far, in both the English and Spanish courses, the extension part is devoted mainly to the preparation of audio-visual materials and to enhancing participants' verbal communication abilities. The direct aim is to help participants present effectively their final project.

In most courses, no attempt was made to integrate the subject matter of the course (dairy) and the problems arising when innovations are introduced into an agricultural system through intensified extension. For both administrators and extension officers, who make up the bulk of the participants, questions of extension

planning, operating, monitoring and evaluation are not less important than audio-visual and communication methodologies. They should be part of the courses, in which extension is deliberately included in the program.

In the Spanish course of 1982 an attempt was made to emphasize the role of extension in the planning of livestock husbandry. The time allowance for extension was augmented by 50%, from 40 to 60 hours. According to the course director, this attempt was not successful and the time allotted to extension was reduced by more than half in the following year (to be doubled again the year after). Apparently, the bad name extension services and even the term "extension" have in Latin America made some participants object to its inclusion as a major topic in the courses.

When this problem was discussed with participants in the 1984 and 1985 courses who held negative opinions about extension, based only on their local experience or on hear-say, and after they had "tasted" extension, they became persuaded that extension could play an important role in development, if done the right way. (See section 4.9)

When we asked participants at the beginning and at the end of the 1985 English course, how much time should be spent on extension, we received the following results (Table 7):

Table 7

PARTICIPANTS' OPINIONS ON THE TIME WHICH SHOULD BE DEVOTED TO EXTENSION

(Number of participants)

Time for Extension	Opinion at the beginning	at the end
10 - 20%	4	3
25 - 30%	5	4
40% and more	7	10

Since the pretest was not anonymous, we know that the respondents who wished "little extension", were trainees working for private firms. Apparently, some of them became persuaded that, after all, extension might be a useful thing.

Within the realm of extension, practically all time was devoted to extension methods and very little to planning, monitoring and evaluating extension, although it can be assumed that many of the participants will have to deal with these questions not less than with extension methods.

When inspecting the detailed course program and when speaking with lecturers, we found indications, that theoretical topics were treated at a higher level of difficulty, in the Spanish speaking courses than in the English courses. This seems to be justified by the more advanced academic background participants from Latin America had. Since no examinations were given, this point cannot be verified.

When we analyzed specific professional topics, the introduction of new issues, especially during the last two years, could be observed, e.g. practical field work in artificial insemination and the use of computers.

While in each course much time was devoted to the transfer of Israeli knowledge and know-how to participants, the complementary

objective - to help them to implement and to adapt this knowledge and know-how to their own situation, was not conspicuous. However, some lecturers solved the problem by focusing on the process and the development stages through which the Israeli dairy industry went, rather than emphasizing present-day Israeli technologies. Both course staff and outside lecturers (especially those unfamiliar with the dairy situation in participants' countries) repeatedly told us, that once participants had mastered the knowledge, they would be able to apply it in their own situation. This view overlooks the differences between straight forward adoption and adaptations needed to overcome the tremendous differences in the options open to farmers in Israel as compared to their counterparts in Asia or Africa (for instance).

The time devoted to the "country reports" is not included in Tables 5 and 6, because this part of the program was considered in most cases to be an "extracurricular activity" which was scheduled in the evenings. Experts on dairy in the developing countries who could serve as resource persons, usually did not participate. The discussion of case studies which participants bring with them can be an excellent starting point to discuss the applicability or need for adaptation of techniques and solutions learned in the formal part of the course.

Table 8 shows the number of days devoted to practical work, in a Kibbutz or Moshav, in the English and Spanish speaking courses.

Table 8
TIME ALLOTTED TO PRACTICAL FIELD WORK
(Days)

Course	1980	1981	1982	1983	1984	1985
English speaking	2	5	8	?	-	5
Spanish speaking		4	4	4	4	4

While the time allotted to practical field work was constant in the Spanish speaking courses, it was fluctuating in a ratio of

1:4 in the English speaking courses. This fluctuation is not due to changes in opinion, regarding the optimal time spent in practical work, but rather due to the difficulties of finding suitable work places. It is easier to find such places in Kibbutzim than in Moshavim (but lately also Kibbutzim seem to be more reluctant to accept trainees than in the past). The dairy conditions in Kibbutzim are often far different from those in the countries of the participants. (Here again, the difficulty is less serious for trainees from Latin America,some of whom work with large estates.). It is more difficult to place participants in family farms, in Moshavim. Thus, in the English speaking course of 1984, practical work had to be replaced by excursions and demonstrations. Most of the participants in the English course of 1985 did their practicum in Kibbutzim and not in Moshavim, although the prospectus title included the indication "with special emphasis on family farms".

It is only natural, that participants coming to a foreign and sometimes far-away country, wish to see something of its landscape and people. This is true also for trainees coming to Israel. But in addition, particpants in courses held in Israel want to visit the Holy Places of their (Christian or Moslem) religion. Therefore, full day excursions are set aside for sightseeing, visits to Holy Places, visits to different agricultural and crop areas, and places of special professional interest.

Table 9 summarizes the time allotted to full day excursions.

Table 9
TIME ALLOTTED TO FULL DAY EXCURSIONS
(Days)

Course	1980	1981	1982	1983	1984	1985
English speaking	10	6	11	?	8	9
Spanish speaking		3	7	7	7	8

As in the case of practical work, the time allottment in the English speaking courses fluctuated more and tended to be slightly larger than in the Spanish speaking courses.

The student body in the English courses was more heterogeneous. Since the evaluation of one course influenced the planning of the next, changes were based on the latest experience. Often, in the course following the previous one, the choice of topics and the allottment of time were changed back again. Because the composition and level of the student body is not known until the course begins, planners have difficulties accomodating the course details to the wishes of participants. The staff has made great efforts to meet the special needs and wishes of participants by arranging meetings with Israeli counterparts, either during or immediately after the course, when that was possible and participants did no have to return immediately after the course.

The formal, instructional part of the courses is based on lectures. Course organizers try to induce lecturers to use audio-visuals, mainly overhead projectors.

There is a lack of written course material in both languages. Also, the libraries at both centres contain only few English or Spanish books on dairy production generally and in warm climates specifically.

In the records of several evaluation sessions (also in the 1985 English course) participants deplored that they had not had more time to discuss their development problems. Participants felt that they could ask lecturers direct questions (and question time was often restricted, because the lecturers used all their time to present their talk), but not enough time was fixed for discussion. This discussion of problems in a peer group sometimes occurred when participants worked on their project.

4.5 Staff

In Section 4.8 we discuss the overall evaluation of the courses and participants' opinions on the course and on what they had learned and experienced. The feedback was very positive and participants considered the courses to be highly successful. Much of the success of the course is due to the dedication, empathy and enthusiasm of the permanent staff members, who are ready to work unusual hours, weekends and often do errands for participants beyond the line of duty.

Considering the changes in the course programs, the composition of the staff - including the outside lecturers - was highly stable. While instruction in extension methods is given by the permanent staff of the two training centres, professional topics are taught by outside lecturers, usually subject matter specialist from the Extension Service, the Agricultural Research Organisation or the Faculty of Agriculture of the Hebrew University. Whenever a new lecturer was recruited and succeeded in his task, he was invited again the next time. Many lecturers have remained with the courses over long periods, although the pay, and even reimbursement for mileage is modest (to say the least). This sense of dedication was mentioned several times also by participants, and has contributed much to the overall success of the course.

Lecturers and even one of the dairy specialists responsible for the professional part of the courses, expressed the wish to learn more about the background of participants at the beginning of the course, and to receive more feedback from evaluation sessions at the end of the course.

While most Israeli professionals speak fairly good English and the best people working in different areas could be invited to lecture in the courses, the availability of Spanish speaking lecturers is more restricted. Sometimes lecturers were chosen be-

cause of their good command of Spanish, when the top experts in the country did not speak this language. In other cases, lectures were translated into Spanish, but that was only seldom the case.

The success of new lecturers can easily be assessed by course and centre directors who attend the novice's lectures and hear course participants' comments.

Since most lecturers in the Spanish speaking courses originate from Latin America and many of them had worked in agricultural development projects in that area, they were generally familiar with participants'specific problems of agricultural development. This was much less the case in the English speaking courses, where participants from many continents and cultural heritages met and where even experienced lecturers found it difficult to adapt to the special needs of each participant or at least of several sub-groups coming from countries with similar socio-cultural and ecological conditions. Hence the preparation of case studies and the briefing of lecturers on specific area problems (when unknown to them) and on possible adaptations of the Israeli experience to conditions in developing countries could be of great help. This could probably best be done in a preparatory seminar, similar to that which prospective lecturers in on-the-spot courses attend. Such a seminar could also help foster links between the outside lecturers and the permanent staff. The former often feel they are just one-day butterflies in the course and not really "in". Lecturers who participate in such a seminar would also become more ready for participation in on-the-spot courses.

4.6 The Project as Integrating Exercise.

Subject matter is taught in the courses by dairy specialists. Some of them work in the Extension Service, but they usually do not relate to extension problems in their lectures. Extension topics are taught by the permanent staff of the CINADCO training centres. Some have a stronger background in social professions

than in agriculture, and none is a dairy specialist. Thus, while there was a "common language" between subject matter and extension specialists, each group kept to its own theme. Professional lecturers in the English speaking courses felt they also could contribute to the extension theme, but were not asked to do so.

Towards the end of the course, participants working in groups of 3-5 are asked to present a specific project, which they planned together. This project work and presentation can be considered the peak learning experience (Blum,1975) of the course.

The main problem in the evaluation of projects was the difficulty of locating projects, especially in the English courses. Projects files are not kept in a fixed place, either in one of the course centres or in the CINADCO centre in Tel Aviv. There are no clear instructions on what to done with projects after their presentation, whether to hand them back to one of the project team members (which of them? after photocopying them?) or to file them for future use by staff and other trainees who could learn from them.

Judging from verbal and written comments of participants, they are aware of the importance of project work and appreciate it.

The topics for the projects are chosen by participants, usually from a list suggested by the dairy lecturers, who also tutor trainees during the preparation of the project. The project topics usually deal with problems which are relevant to the dairy development problems in the ecological and socio-cultural areas from which course participants come. Tutored project work provides an excelllent opportunity to help trainees adapt the Israeli solutions to dairy problems to the technologically different situation in their own country.

Tutored project work could also be used to let trainees integrate what they have learned in lectures, exercises and excursions on both professional and extension topics. The large majority of those projects which we could find treated professional topics, without attempting to integrate extension problems or strategies. This is due to two reasons: (1) the integration between the two themes in the lectures was weak, and (2) participants learned little on extension organisation and its role in development projects.

The main topics treated in final projects were milking techniques, breeding, feeding, management, organization and economic problems of the dairy industry. Some projects concerned the setting up of cooperatives and a few included extension issues. In one of the latter, the rationale, objectives, strategies and extension methods to be used in one developing country were explored. Another project dealt with setting up a regional advisory centre and services for dairy farmers. Another good, example of integration was a project in which milk production served as basis for integrated rural development, and extension activities and training offered to farmers and technicians were planned as stimulating factors.

Tables 5 and 6 show considerable fluctuations in the time allotted to project work, with peaks in the 1985 courses. Also the beginning of project work within the course changed over time. Preparation of projects used to start relatively late, in the second part of the course or towards its end. This was done on the assumption that by then participants had learned more on the topics related to theirepared the project. During the last few years project work began earlier, actually from the first phase of the course. Thus, participants could devote more of their unscheduled time to work on their project.

As already mentioned, much of the instruction in communication methods is geared towards the presentation of the projects. Although no formal evaluation of the quality of the presentations exists, observations and feedback from participants indicated that presentations usually were of a high standard.

Participants present their projects at the end of the course to colleagues, staff and invited guests. These comment on the projects, but usually no notes are taken. Therefore no general evaluation of past projects is possible. A more systematic evaluation procedure could help to further improve project work and to evaluate the advantages and disadvantages of this important methodological tool.

4.7 The cooperative structure of Israeli agriculture

Participants in the courses had an opportunity to get to know the cooperative forms typical for Israeli agriculture - Kibbutzim and Moshavim - through lectures, excursions and a practical work period in a Kibbutz or Moshav (see Table 8). In the English speaking course of 1985 an interesting experiment was made. Before leaving for the settlement, participants suggested questions which they might ask the Israeli farmers. The chairmen of the working groups put the suggestions into the form of a checklist.

Although the title of the prospectus for the 1985 English speaking course included the phrase "..with emphasis on the family farm", five of the eight participants in the dairy course spent their practical work period in a Kibbutz. The reason was, as already mentioned, the difficulty of placing trainees for short-term practicals on Moshav (family) farms.

This did not diminish participants' very positive view on the time spent in an Israeli cooperative settlement. Judging from the spontaneous feedback after experiencing either a Kibbutz or a Moshav settlement, they were much impressed. This could be evi-

denced in informal talks with participants, in the formal evaluation sessions and, anonymously, in the final questionnaire which we gave to the English speaking trainees. In the evaluation session after their return from the settlements, the majority wished they could have stayed there longer. When asked, in a final questionnaire about the most important things they had learned on dairy, while in Israel, some of the answers were:

- Cooperatives for farmers,
- Cooperation between workers and management,
- Cooperative marketing,
- The whole production scheme.

When participants were asked in the anonymous, final questionnaire: "What is the most important message from Israel which you will bring back home?", again some of the answers related to the experience in the cooperative settlement, e.g.:

- The cooperation and attitude towards work,
- The importance of a good marketing system,
- The unity of the people, who tried to find a technology to solve their problems,
- To put all we possibly can into production,
- The importance of working in a team.

Other messages, which participants thought most important, will be discussed in the chapter on impact evaluation.

4.8 Evaluation procedures

Evaluation in the CINADCO courses is based on feedback sessions, during the course and at its end, and on a final evaluation questionnaire. Of course, informal talks with participants give most important (though more subjective) feedback. Some time after the end of the course a report is written and sometimes an evaluation meeting is held, in which the permanent course staff and others in CINADCO participate.

In order to evaluate the cognitive and affective achievements of trainees and the overall success of the courses, data on where participants stood at the beginning of the course are needed. As Budescu (1985) already pointed out, these data are often not recorded, especially in the English speaking courses. Also, when notes were taken, e.g. in personal interviews, they were not always communicated to other members of the staff. After discussions on the need to keep better records, which were held in CINADCO and in the Division for International Cooperation, the Evaluation Officer of CINADCO issued a checklist on documentation and on data which should be recorded (Appendix 1).

Inspection of the files of the last dairy courses, which were held after the release of the mentioned document, showed that there are still problems with collecting and recording data. Thus notes could be found on only four staff meetings (two prior to the course and two during the course). It can be assumed that more meetings did take place. Since at these meetings program decisions are taken, it is difficult to follow up the development of changes which were introduced into the courses and the reasons for them, when documentation is missing.

According to the files of the 1985 English course, five of the eight participants were interviewed, mainly on how they heard about the course and about their work at home. Summaries of 5-8 lines on each of these participants were recorded. During the course, four evaluation sessions were held with participants, including the final evaluation meeting. The main topics, besides technical arrangements (including the wish for a free day), were:

(a) participants' request that lecturers should relate more to the conditions in developing countries;
(b) that they should tell how Israeli agriculture developed over the last thirty years;
(c) feedback on the stay in Kibbutzim and Moshavim; and

(d) remarks on individual lectures.

In both the Spanish and English courses, final written questionnaires are given, which mainly use a Likert scale of five points to collect participants' opinions on different questions. In the last English speaking course, for instance, 13 statements were included in the questionnaire which the staff gave participants at the end of the course. Each statement was followed by a scale from 1 (the most negative) to 5 (the most positive):

- For you personally the level of the course was.....(1 to 5)
- The duration of the course was.....(1 to 5)
- The quality of publications was .....(1 to 5)
- The quantity of publications was.....(1 to 5)
- The professional trips were.....(1 to 5)
- The stay in the Moshav or in the Kibbutz was.....(1 to 5)
- The division of time between lectures in classroom, professional trips and practical work was.....(1 to 5)
- The time allotted to preparation of the project was ..(1 to 5)
- The applicability of the project is .....(1 to 5)
- The organisation and management of the course was ....(1 to 5)
- The accommodation was .....(1 to 5)
- The social programme was .....(1 to 5)
- The sightseeing trips were .....(1 to 5)

The results of this questionnaire were not included in the Course Report and the original questionnaires were not saved. Thus, there is no way to know what participants answered.

While short statements with Likert scales can be very useful to get a quick answer on relatively many questions, wording has to be checked carefully. Thus, negative answers on a statement like "the time for x or y was...1 to 5" cannot indicate, if the respondent thought that time was too short or too long.

After each statement in the questionnaire, two empty lines were left for special remarks. Since the questionnaires in the English speaking course were neither saved, nor summarized, it is impossible to evaluate how helpful the remarks were.

The questions in the final questionnaires change from year to year and from one course director to another. This makes comparisons and additive evaluation nearly impossible.

The final questionnaires have a second part - a list of 21 lectures given during the course, with the name of the lecturers. Participants are asked to rate on a five point Likert scale the contents of the lecture, the quality of presentation and the relevance to participants' work.

While short questionnaires on specific lectures are useful, when answered immediately or at least shortly after the lecture, their reliability becomes doubtful with the passage of time and the lengthier the list is. In the English dairy course, the intake questionnaires were distributed two months after the course started. Since many lecturers had talked about similar topics (dairy production) and participants met most lecturers just during one presentation, they had difficulties remembering after weeks who said what and how, and in which lecture.

A small anecdote from another (non-dairy) CINADCO course will illustrate the point. Among the last on the list of lecturers was one who could not come. This did not prevent 25% of participants from grading also this non-lecturer quite positively. Bingo.

Out of the 21 lectures listed in the questionnaire, 12 were given by outside lecturers and 9 by the permanent staff. When we come to inspect the grades given by participants, serious doubts are raised about the usefulness of the lengthy and late instrument. The mean grade for the lecturers on all three questions

(content, presentation and relevance) was slightly above 4. All but one lectures received grades above 3. The problems with the lecturer who was rated 2.83, 2.83 and 3.16 were known to the course director long before administering the questionnaire. In practice, the questionnaire did not give any new, useful information.

The inclusion of 9 lectures, given by 3 permanent staff members made the instrument longer and therefore more cumbersome than needed. The fact that professional extension staff is better in lecturing (averaging 4.4) than dairy specialists (who averaged 3.4) could be foreseen. Since the teaching quality of the staff, who work already for many years in the centre is well known, the inclusion of their lectures or at least some of them in the questionnaire made the instrument even lengthier and therefore less reliable and did not provide any new information

The average rate of relevance was higher for the extension topics (4.3) than for the dairy topics (4.1). This finding stands in contrast to most participants' expressed view, that professional problems are more important to them than extension topics.

It is a well known fact, that learners who are not trained to differentiate between content and presentation, seldom make this differentiation. They usually express their overall impression of a lecture. Thus, it is not surprising that the Pearson correlation coefficient between Content and Quality of Presentation was 0.88.

More surprising were the nearly equally high correlations between Relevance and Content (0.81) and between Relevance and Quality of Presentation (0.85!). For the first, two (contradictory) causal explanations are possible. Either good lectures persuaded their listeners that what they talked about was relevant to their work, or when participants thought a topic to be relevant, they

appreciated the lecture and gave it a high mark. In any case, these high correlations give food for thought about the value of asking "amateurs" to rate the same lecture according to different, but partly connected criteria.

Because existing evaluation questionnaires could not give an answer to some of the questions we were interested in, we developed two questionnaires, one to be answered at the beginning of the course, and one at its end. (Appendices 2 - 3 contain the questions and answers). In the first questionnaire, we asked among other questions, how participants had heard about the course and what information they had received before coming to the course. These questions were asked, because at the time the Division for International Cooperation, CINADCO and other training centres in Israel were deliberating, how to improve the dissemination of knowledge about forthcoming courses. Although the number of respondents was small, certain trends can be detected. If these questions will be asked regularly, in all training centres, much important information will accrue on where Israeli delegations are active (or not) in distributing prospecti, who the Ministries in participants' countries are which sponsor trainees, how the prospecti can be improved and so on.

Other questions asked at the beginning of the course explored participants' expectations and served as basis for a comparison with their opinions on how far the expectations had been met by the end of the course. Such questions were:

(a) How would you define the objectives of the course?
(b) What subject matter (professional or technical) topics do you expect to be dealt with during the course?
(c) What are the most burning problems in dairy farming, in your country?
(d) For which of these problems do you expect to receive here enough information in order to find a solution which will suit your country?

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(e) In your view, what is the strength of Israeli agriculture which may contribute to the solution of your problems?
(f) How much time should be given to technical topics and how much to extension issues?
(g) Besides learning about dairy farming in Israel, what are your other expectations from the course and from your stay in Israel?

Question (e) was asked to explore, if participants were already influenced by others (former trainees or Israelis) as to the specific Israeli approaches to cooperation.

The questions which we asked participants at the end of the course were of two types. The purpose of the first was to assess the degree to which they thought they will be able to solve the problems with which they came to the course. Other questions were nearly identical with items in the pre-course questionnaire and their aim was to measure changes in participants's opinions.

We discussed already the change in participants' opinions on the importance of extension, which occured during the course, and their emphasis on coopetation, when asked what the most important things were which they had learned in the dairy course.

The last question in the end-of-course questionnaire was: "What is the most important message from Israel which you will bring back home?" Although one could expect that participants would mention mainly professional insights, only three (out of 18) mentioned knowledge items. Most of the answers reflected strong attitudinal impressions they had gained during the course, e.g.:-
- To be an agent of change , which begins at my work place,
- The importance of working as a team,
- The cooperation and attitude towards work,

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- To work together and produce food for the nation,
- The unity of the people who tried to find a technology to solve their problems,
- To put all we possibly can into production, like Israel did,
- The way of organizing production - Kibbutz and Moshav,
- The readiness to share knowledge (3 participants),
- The hospitality and the kindness of the people (5 participants) and other statements along this line.

These answers point to an impact which cannot be measured by Likert scales. The answers were given spontaneously, on a question which enabled cognitive as well as affective answers. Statements obtained in this way are more trustworthy than direct questions of the type "How impressed were you by...?", in which the expectations (or hopes) of the question writer come through. "Neutral" questions, of the type we used in our final questionnaire, are important to elicit also attitudinal and motivational gains during the course.

Something similar happened when we asked participants at the beginning and at the end of the course how they would define the objectives of the course. At the beginning, all statements concerned knowledge and know-how, with a sprinkle of problem analysis. In those cases in which participants had read the prospectus (not all had received it, because quite a number heard about the course only at the last minute), they were influenced by what was written in the prospectus. At the end of the course the statements became more general and included non-technical issues. The objective most commonly mentioned (by 6 out of 18 respondents) was "to improve extension and how to communicate". Other "non-dairy" objectives mentioned were:
- to teach the use of visual aids,
- group work,
- how to run a project,

- to start development with small farmers,
- how to prepare ourselves for change,
- to show what Israel can offer.

One of the main tasks of the evaluation of a course which will be repeated is to improve it next time. Therefore it is important to look for signs, that the evaluation results had an impact on later courses. This happened in many cases, and in some it was even possible to make modification in an on-going course, based on participants' critique and suggestions.

A typical change in the curriculum, based on the evaluation of the previous year was the enhanced allottment of time for economic issues and for practical work in the 1982 English speaking course. However, it seems that the change from 25 to 43 hours for economics was too radical, and in the following years a middle solution was found. (The files for the 1983 course could not be found. Therefore the direct reaction in the following year cannot be reconstructed.) Also, the augmentation of the days devoted to practical work did not last, mainly due to organizational problems.

Another example, this time from the Spanish speaking courses: Following the suggestions of the participants in the 1983 course, next year more time was left free for individual professional interests of participants, and written instructions were prepared for project work and the practical experience in Kibbutzim and Moshavim.

The decision to start project work at an earlier stage than in the past is another example of a change based on participants' final evaluation of the course. So is the decision to distribute smaller groups of trainees to different Kibbutzim, instead of sending all to the same Kibbutz.

Other repeated recommendations by participants were not implemented, e.g. requests for the inclusion of more topics on computers and on research. Also, the problems of an unsufficient library and of inadequate written materials as back-up to lectures remain unsolved. Their solution lies outside the financial possibilities of course directors and requires larger investments.

4.9 Results of the Action Research

One of the aims of this course evaluation was to try out an Action Research approach (see Weiss, 1972) which would give course organizers a quick feedback, while the course is still going on, together with recommendations how to use the results of the ongoing evaluation. This approach was implemented in the Spanish speaking course of 1985. During the course, one of the evaluators was a participant observer in many activities, talked frequently with the course director, permanent staff, outside lecturers and, above all, with participants. Also, the beginning-of- the-course questionnaire (Appendix 2) was translated into Spanish, administered, and the results were immediately applied to the ongoing course. This was done in meetings with the course director and the technical coordinator (the dairy specialist). The information obtained in the questionnaire and the results of the following deliberations were disseminated to staff and outside lecturers.

A mid-term questionnaire was prepared, which measured participants' reaction to various lectures at a time listeners could still remember them.

As already mentioned, feedback by former course participants indicated that they would appreciate written guidelines for the practical work period in cooperative settlements and on living with Israeli families during that period. Since such guidelines were not prepared before the course, one of the evaluators lead

the staff in the development of written guidelines and in assessing their usefulness.

At the end of the practical work period, this phase was evaluated with the help of a special questionnaire (Appendix 4), in which participants were asked to evaluate the preparations towards the work period, various technical and social aspects of the experience, how much the work period had contributed to their understanding of dairy husbandry in Israel, and how far they thought that the technologies observed and experienced could be adapted to their home situation. Participants were also asked about the adequacy of the time devoted to practical work.

Probably the most positive effect of the action research exercise was its impact on the staff and through them on the ongoing activities in the course. As a participant observer, with whom the staff was familiar and whom they knew to be empathetic to their task, the evaluator could be more objective than the staff involved, yet his suggestions were seriously considered by them and in most cases accepted. Thus a model of "participating evaluator" could be created, in which advantages of both internal and external evaluation could be pooled and many of their disadvantages eliminated.

4.10 Impact Evaluation

All agree that an assessment of the overall impact of the course on participants and of the long-term effects it had on them are the most important evaluation exercises, but also the most difficult to do. While a full, long-term evaluation of the impact which the courses had on participants is outside the scope of this study, we shall at least briefly discuss some indications of the long range impact dairy courses have had on trainees.

In the last chapter (4.9), we could point out some overall impact on participants, at least at the level of unsolicited decla-

rations. In informal talks with participants, we heard again and again their strong appreciation for the efforts made by the staff and its immense devotion to participants, by day and night, if needed. This appreciation, together with the impressions gained during the work period, while working with Israeli subject matter specialists on projects and during excursions, all contributed to the favourable and even enthusiastic overall praise participants gave to the course and its staff, in the final evaluation sessions. There is no doubt in our mind that this laudatum is genuine, especially since it was accompanied by critical remarks and suggestions on specific points in the course program. The list of most important messages which participants took with them home (see Section 4.8) clearly shows, that trainees did not only learn subject matter, but absorbed much of the dedication to development which they found in many of the people they had met during the course. Most participants also went away with a new understanding of the role which cooperation, extension and planned development can play in the building of a nation.

It is more difficult to find concrete documentation of the impact the course had on trainees after their return home. Apparently, close personal relations were forged between participants and staff during the course and these have lead to further correspondence, in which the former trainees wrote how they had used the knowledge and insights gained during the course in their work. Unfortunately, these letters are kept by the staff as private souvenirs and no copies could be found in the course files. Here are some of the accounts by staff members and by outside lecturers, as told to us (but not recorded in the course or follow-up files):

- In quite a number of cases, participants came to courses in Israel on the recommendation of colleagues who had attended earlier courses.
- Some trainees wrote about running courses in their home countries, modeled after those they had attended in Israel.

- Groups of farmers from Venezuela, Colombia, Peru, the Philippines and Kenya came as "agricultural tourists" to Kibbutz Shefayim (where the Spanish speaking courses are held), organized by a former participants.
- One of the Venezuelan participants established a dairy, based on what he had learned in Israel.
- In some cases, lecturers were asked by former trainees to consult on projects which they had set up or were involved in.

- A Peruvian participant ordered computer software from the Kibbutz in which he had spent his work period.
- The Mexican Dairy Producers' Association bought Israeli equipment, based on the suggestion of a former trainee.

4.11 The connection between courses and other development efforts

Besides offering courses in its two training centres in Israel, CINADCO also organizes on-the-spot courses in developing countries and manages agricultural development projects, in coordination with the Division for International Cooperation of the Ministry for Foreign Affairs and with government owned agricultural development companies. Therefore well coordinated links between the three types of activities can enhance the overall impact of CINADCO.

During our evaluation, we came across the following links:

- In some cases, Israeli development projects sent local staff members to courses in Israel.
- In other cases, they disseminated information on the availability of courses in Israel.
- Some staff members and lecturers (especially in the Spanish speaking courses) have worked in development projects in countries from which participants came and have taught in on-the-spot courses.
- When on-the-spot courses are given, local counterparts in Israeli development projects usually attend. In some cases this has

motivated them to come to Israel to attend a longer and more demanding course.

- Development projects were initiated and implemented by former course participants in Venezuela, Colombia, Peru, the Philippines, Kenya, Thailand and the Dominican Republic. Further investigations are needed to assess, to what extent the courses contributed to these initiatives.

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Last, but not least, we are obliged for the feedback received from course participants in both the English and Spanish speaking dairy courses held in 1985.

Appendix 1

מדינת ישראל
משרד החקלאות
המרכז לשיתוף והדרכה חקלאית בינלאומית

נוהל תיעוד תכנון וביצוע קורסים וסרנאות בארץ
לצרכי מעקב והערכת

להלן רשימת חומר ואירועים לתיעוד בתיק הקורס/סרנא;

א) <u>לפני הקורס:</u>

1) <u>החלטה על קיום הקורס</u>

- שיקולים לגבי קביעת נושא, מטרה, אופי, מועד, משתתפים וצוות הקורס.
- תהליך קבלת החלטות בנושאים הנ"ל.

2) <u>פרוספקט הקורס</u>

- הפרוספקט עצמו
- שיקולים ותהליך קביעת התוכן
- תהליך הדפסה
- תהליך ויעדי משלוח מהארץ
- תהליך ההפצה בארצות היעד

3)<u>דרכים נוספות לאיתור מועמדים</u>

- העתקי חוזרים למשתלמים לשעבר ומוסדות
- רשימת תפוצה של החוזרים
- רשימת תפוצה של מכתבים פרסיים

4)<u>מועמדים לקורס</u>

- תהליך הגעת שאלוני (או שמות) מועמדים
- שיקולים ותהליך מיון ואישור מועמדים
- טיפול במועמדים שהשתתפותם לא אושרה.
- שאלוני מועמדים
- רשימת ריכוז נתונים על המועמדים (כולם)

2/.

הקריה, ת"א ת.ד. 7054 טל:211492, 03-211490,מיקוד:61070

5) <u>תוכן הקורס וצורות המרצים</u>
- צורות ניהול הקורס
- שיקולים ותהליך קביעת תוכן הקורס ושיטות הלמידה
- שיקולים ותהליך קביעת המרצים בקורס
- פעולות עידכון קבוצתיות של צוות המרצים
- התקשרויות לפעולות אחרות של הקורס (מלבד הרצאות)
- תכנית הלימודים והפעילות הכללית

6) <u>תקציב הקורס</u> - העתק הצעת התקציב.

7) <u>ישיבות צוות הנהלת הקורס</u> - פרוטוקול הישיבות.

ב) <u>במהלך הקורס:</u>

1) <u>הגעת המשתלמים</u>
- רשימת פרטי הגעת המשתלמים תוך ציון הסיבות להקדמות ואיחורים.

2) <u>ראיונים אישיים</u>
- העתק טופסי הראיונים שיכללו:
  - פרטים אישיים
  - נתונים מקצועיים
  - נתונים על המוסד המעסיק
  - ציפיות מהקורס
  - תהליך ההצטרפות לקורס (מקבלת המידע הראשוני על קיום הקורס ועד הגיע המשתלם למקום הקורס).

3) <u>שיחות חפשיות למעקב והערכה</u>
- שיקולים לקביעת השיחה
- פרוטוקול השיחה
- החלטות שהתקבלו (אם התקבלו) כתוצאה מהשיחה

4) <u>שאלוני הערכה</u> (תקופתיים וסופיים)
- העתקי השאלונים הממולאים
- העתקי ניתוח השאלונים

5) <u>חומר בכתב</u> (לימודי או אחר)
- סקירה על השימוש בחומר בכתב
- העתקים או רשימת חומר בכתב שחולק למשתלמים

6) <u>תכניות לימודים תקופתיות</u>
- העתקי תכניות הלימודים התקופתיות כולל ציון שינויים (אם היו) והסיבות לכך.

7) עבודת גמר ופרויקטים

- העתקים (או רשימה, עם מספרי קטלוג, באם אוכסנו בספריה)
- פרוטוקולי דיוני הערכה (אם התקיימו)

8)חומר הכנה לפעולות מעקב וקשר עתידיים

- העתקים של החומר שנמסר למשתתפים (באם נמסר).

9)ביקורי אורחים

- רשימת אורחים (עם פרטים אישיים, מקצועיים ותפקידיים)שביקורו במהלך הקורס.

10)פעולות תרבות וחברה

- הפעולות שקוימו והערכתן
- הפעולות שתוכננו ולא קוימו והסיבות

11)אנשים ומוסדות הקשורים בקורס

- העתקי הרשימות השמיות (כולל כתובות)
- הערכת התרומה לקורס

12)שינויים במהלך הקורס

- צוות ניהול הקורס
- מרצים
- תכנית לימודים
- משך הקורס
- שונות

13)ישיבות צוות הנהלת הקורס

- פרוטוקול הישיבות.

ג) אחרי הקורס:

1) הערכת המשתלמים על ידי הצוות

- העתקי ההערכות.

2) דו"ח ביצוע הקורס

- העתק הדו"ח

3) ישיבת דיווח על ביצוע הקורס (מסכמת)

- פרוטוקול הישיבה.

4) פעולות קשר מעקב והערכה

- העתקי שאלונים וחוזרים שנשלחו ורשימת תפוצה.
- דו"חות וניתוחי מעקב והערכה רלבנטים.

Appendix 2

QUESTIONNAIRE TO PARTICIPANTS AT THE BEGINNING OF THE ENGLISH LIVESTOCK COURSE IN MIDRESHET RUPPIN, 1985

(The questionnaire was given after the introductory meeting with the staff. Thus first influences by staff are possible. Participants answered partly by giving their own objectives, partly by repeating the officially stated objectives and partly by commenting on the character or value of the stated objectives. Among the answers are those of the English speaking poultry course, which was held in Midreshet Ruppin in conjunction with the dairy course.)

1. How did you first hear about the course?

From Ministry of Foreign Affairs: 6 (2 Thailand, 2 Liberia, 1 Burma, 1 Nepal)
From Israel Delegation: 2 (Ghana)
From earlier participant: 3 (Thai, Swazi, Philippino)
From Israelis working in the country: 3 (Ghana - Israeli firm)
From Superior in Ministry of Agriculture: 2 (Swazi, Haiti)

2. Did you read the official prospectus of the course?

yes: 10 - (3 Thai, 2 Swazi, 2 Ghana, 2 Philipp, 1 Nepal)
no: 6 - (2 Liberia, 1 Ghana, 1 Burma, 1 Haiti)

3. If yes, how did you get the prospectus?

From Ministry of Foreign Affairs: 3 (All Thailand)
From Israel delegation: 2 (Philipp., Nepal)
From Ministry of Agriculture: 2 (both Swazi,in Israeli firm)
From former participant: 1 (Philippino)

4. What information in which you were interested was not contained in the prospectus?

Dairy nutrition and extension in Israel, artificial insemination. [These items are specifically mentioned in the prospectus]
Irrigation [?]

7. If you did not receive the prospectus: What information on the course did you receive?

No information (2)
Copy of letter to Ministry inviting applications. Then the embassy informed us what was expected from us, like bringing working clothes (2 Liberia)
Through Israeli firm (2)
I was asked to go to the Israeli embassy and fill in a questionnaire.

8. How would you define the objectives of the course?

- (a) How to have a good dairy breed to produce high production of milk in warm climates. [Warm climate was mentioned in the prospectus]
  (b) To see new technology of dairy production.
  (c) Feed and nutrition of dairy cows.

- To exchange ideas and knowledge and gain the new idea of broiler industry.

- Dairy production and extension with emphasis on family land and warm climate.

- dealing with every aspect of poultry and livestock production, advantages and disadvantages, management, diseases and their cures etc.

- (a) To learn about egg production
(b) To learn about artificial insemintion methods for cattle.
(c) To learn about technology of milk production and agriculture system and irrigation.

- (a) to enlighten us how we can face some of our local problems with some of the ideas we are hoping to pick up here.
(b) to make us identify deficiencies in our own local structures.

- To help develop livestock production in developing countries.

- Acquaintance with technological advances in dairy industry in warm climates and to assist in finding some solutions to specific problems in home countries.

- First hand information on management of Israeli poultry breeds and maintenance, because all our breeds come from Israel.

- To improve production techniques and make their activities more effective.

- Interesting, highly technical and educational, but could also be considered practical.

- To give us the insight into Israel's livestock production system in order to extract the most beneficial part that will fit into ours.

- Collect applicable information for our country.

- Quite technical, formal, professional and highly relevant.

- To learn many techniques and to transmit the experiences in my country

- Technical help.

9. What subject matter (professional or technical) topics do you expect to be dealt with during the course?
[Only topics pertaining to cattle will be listed here]

Breeding (5)
Artificial insemination techniques (2)
Nutrition (6)
General management (8)
Disease control (2)
Computerized data processing (2)
Production (2)
Extension (4)
Economics
Veterinary Services
Record keeping
Financial Accounting
Marketing
Biology

11. For which of these problems do you expect to receive here enough information in order to find a solution which will suit your country

Disease control (2)
Nutrition (4)
Breeding (2)
Artificial Insemination
Management (2)

Milk marketing
Irrigation of grazing crops
Land tenure system (2)
Economic viability [x]
Framework for National Dairy Cattle Improvement Scheme
Policy making
First stock and equipment
Financial assistance [The participant is an administrator.]
Continuous education
Technical know how

12. <u>In your view, what is the strength of Israeli agriculture which may contribute to the solution of your problems?</u>

High production of dairy cattle (2)
Responsibility and ability of Israeli people
Good irrigation (2)
Good planning, management and marketing (5) [Emphasis on cooperative marketing]
Strong and unique agricultural system (2)
Good tenure system: every piece of available land is used
Availability of inputs (capital)
Worker incentives
Automation and computerization.
Good/high technology (2)
Readiness to impart knowledge to others (3) [Some citing this course]
Good extension approach
It could give financial and educational aid [The administrator in the group].

13. How much time should be given to technical topics and how much to extension issues?

Technical	Extension
45-60	40-55 (7)
70-75	25-30 (5)
80-90	10-20 (4) (all interested in poultry, working for private industry).

14. Besides learning about dairy and poultry farming in Israel, what are your other expectations from the course and from your stay in Israel?

Agriculture in Israel
Irrigation (3)
Holy places (3)
How people live in Israel (8)
Sightseeing
Kibbutz and Moshav
Hoping to work for a month in a commercial poultry farm (2)
To learn from other nationals
Women's organisations

Appendix 3

QUESTIONNAIRE TO PARTICIPANTS AT THE END OF THE ENGLISH SPEAKING COURSE ON LIVESTOCK IN MIDRESHET RUPPIN, 1985

[Including trainees in dairy and poultry, unless poultry was clearly stated]

1. Looking backward, how would you describe today the objectives of the course? [Not included are statements of general praise]

To improve livestock production (4)
To improve extension and how to communicate (6)
To teach the use of visual aids
To start development with small farmers
To update my knowledge
To show what Israel can offer
How to run a project
To show the way of life and production system in Israel
Group work
How to prepare ourselves for changes

2. What were the dairy problems on which you received enough information in the course to enable you to suggest a good solution after your return home? [Dairy only]

Extension approaches (2)
Management (2)
Breeding programs (3)
Management of dairy herd and practical work (Moshav)
Feeding management (2)
Production fertility through better health
Composition of feedstuff
Economic management (2)
Production program (2)

3. What were the problems on which you received some information during the course, but not enough to suggest a good solution?
Not enough extension
Marketing problems (2)
Breed improvement (3)
Feeding and nutrition (5) [1: most was familiar]
Vaccination
Use of by-products
Manual calculation of feed cost
Practical aspects (2) [1: in vet. laboratory]

4. What was missing, in your view?
Nothing was said on the extensive system of raising dairy cattle - range cattle, which is critical in the tropics.
How to introduce dairy cooperatives or making them more successful.

5. Which of your problems was not discussed?
How to utilize local products to supplement feeding.
Farm management [?]
Financial problems

6.Looking backward: How much time (in percentages) should be given during the course to technical topics and how much to extension issues?

Technical	Extension
50-60	40-60 (10)
70-75	25-30 (4, from them 2 poultry)
80-90	10-20 (3, from them 1 poultry)

7. What were the most important things you learned on dairy, while you were in Israel?
The importance and techniques of extension (7)
Management aspects (7)

Breeding (3)
Feeding and nutrition (8)
Economics of production (3)
Cooperatives for farmers
Cooperation between workers and management
Health and prevention of diseases
The whole production scheme
(Cooperative) Marketing
Veterinary services

8. What were the most important things you learned on extension, while in Israel?
Setting objectives
Role and organisation of the extension service (3)
Approach to extension officer
Approach to farmers and feedback to them (6)
Good coordination between research and extension
Finding the problems and their solutions
Planning extension programmes
Improving extension methods
Communication skills and importance (7) [Emphasizing lectures]
Teaching skills (3)
Selection of farmers [?]
Create motivation
Farm visits (2)
Use of Visual aids (8) [1: Good to motivate school children]
Group work

9. What is the most important message from Israel which you will bring back home?
Much knowledge (3)
It is important to work as a team and to integrate
Tenets of brotherly love

9. <u>What is the most important message from Israel which you will bring back home?</u>

Much knowledge (3)
It is important to work as a team and to integrate
Tenets of brotherly love
To be an agent of change, which begins at my work place
The unity of the people who tried to find a technology to solve their problems
The way of organizing production - Kibbutz and Moshav.
The readiness to share knowledge with others (3)
Lovely people (hospitality, kindness etc) (5)
To work together and produce food for the nation
To put all we possibly can into production, like Israel did
The cooperation and attitude towards work
The use of all by-products in all agricultural fields
Start from below the pyramid and work upwards
Try to reach the farmers first and then work your way up
Good marketing and irrigation system

Appendix 4

ESTADO DE ISRAEL
MINISTERIO DE AGRICULTURA

CENTRO DE COOPERACION INTERNACIONAL PARA EL DESARROLLO AGRICOLA (CINADCO)

CURSO INTERNACIONAL SOBRE: CRIA, NUTRICION y ADMINISTRACION AGROPECUARIA

Cuestionario de evaluación- estadía en asentamientos agrícolas 10-14.11.85

		(PROMEDIO)
1- Los objetivos de la estadía fueron claros	1 2 3 4 5	(4.6)
2- Los preparativos preliminares fueron adecuados	1 2 3 4 5	(4.0)
3- La estadía era indispensable para el desarrollo del curso	1 2 3 4 5	(4.4)
4- La estadía contribuyó a mis conocimientos profesionales	1 2 3 4 5	(4.2)
5- La estadía amplió mis conocimientos generales sobre Israel y sus agricultores	1 2 3 4 5	(4.4)
6- La pasantía contribuyó al cococimiento de los servicios de apoyo (extensión, servicios veterinarios)	1 2 3 4 5	(4.2)
7- La duración de la estadía fue adecuada (si corta o larga) la duración adecuada es de ....días	c a l (12 15 2)	
8- Estoy satisfecho del hospedaje	1 2 3 4 5	(4.2)
9- La estadía me ayudó a entender mejor la posibilidad de adaptar tecnología a las condiciones de mi país	1 2 3 4 5	(4.3)
10- La época de la estadía (a mediados del curso) fue adecuada	SI (21) NO (6)	
La época recomendada es: al inicio del curso (2)		
al final del curso (4)		

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